

CLAIMS:

1. A plasma display screen comprising a carrier plate, a transparent front plate, a ribbed structure dividing the space between the carrier plate and the front plate into plasma cells, which are filled with a gas, one or more electrodes arrays for generating corona discharges in the plasma cells, and a phosphor layer comprising a blue-emitting phosphor of the general formula $(La_{1-x-y}Gd_x)Si_3N_5O_vF_w:Ce_y$, where $0 \leq x < 1$, $0 < y < 0.1$, $0 \leq v < 0.1$ and $0 \leq w < 0.1$.
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2. A plasma display screen as claimed in claim 1, characterized in that the phosphor layer comprises the blue-emitting phosphor $LaSi_3N_5$.
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3. A phosphor layer comprising a blue-emitting phosphor of the general formula $(La_{1-x-y}Gd_x)Si_3N_5O_vF_w:Ce_y$, where $0 \leq x < 1$, $0 < y < 0.1$, $0 \leq v < 0.1$ and $0 \leq w < 0.1$.
4. A phosphor of the general formula $(La_{1-x-y}Gd_x)Si_3N_5O_vF_w:Ce_y$, where $0 \leq x < 1$, $0 < y < 0.1$, $0 \leq v < 0.1$ and $0 \leq w < 0.1$.
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5. A phosphor of the general formula $(La_{1-x-y}Gd_x)Si_3N_5:Ce_y$, where $0 \leq x < 1$ and $0.01 < y < 0.1$.